

Career Profile: Civil and Structural Engineering Associate



Civil and Structural Engineering Associates provide technical support to Civil Engineers and Civil Engineering Technologists in the research, design, construction, operations and maintenance of projects such as roads, airports, railways, buildings, bridges, dams and drainage systems.

Also known as: Civil Engineering Technicians, Structural Engineering Technicians, Civil Engineering Draftsperson

Specialisations include: Civil Engineering Design Drafter, Engineering Technical Officer, Structural Engineering Design Drafter

What would my working day look like?

Some of the tasks you may complete are:

- ▶ Providing support to civil engineers and help estimate costs
- ▶ Assisting with research, design and construction of civil and/or structural projects
- ▶ Perform fieldwork and lab testing on soils, materials and analysing the data/results for the project
- ▶ Help prepare specifications for materials to be used on a project
- ▶ Carry out surveying and prepare sketches, charts, plans and designs for the works to be completed
- ▶ Use computers to produce designs, drawings and documentation
- ▶ Maintain contact with onsite construction workers and project managers
- ▶ Ensure final work is completed within specifications regulations and contract provisions
- ▶ Inspect civil engineering works and identify any areas to be repaired
- ▶ Organise and oversee maintenance and repair work

I might enjoy this job if:

- ▶ I like studying Design and Technology, Geography, Maths, Engineering and/ or Environmental Studies
- ▶ I prefer a mixture of working indoors and outdoors
- ▶ Enjoy working with others
- ▶ I have an aptitude for computer and design
- ▶ I have good attention to detail
- ▶ I enjoy practical hands on work
- ▶ I handle stress and stressful situations with a level head and can meet deadlines

Working conditions and hours

You will usually work in an office with some onsite work as required. When onsite you will mostly be working outdoors in all types of weather conditions. At times you may also work in a technical laboratory or a workshop. You will generally work full time (approximately 44 hours per week) during business hours but may be required to work evenings and weekends when trying to meet deadlines.

How do I become a Civil and Structural Engineering Associate?

To get started if you're still at school, you can enrol in the Certificate II Civil Construction qualification as part of your WACE certificate. This can also be completed as a traineeship or school-based traineeship which usually takes 12 -18 months. Have a chat with your school careers advisor for more information. Otherwise, you may like to complete a Diploma or Advanced Diploma in Civil & Structural Engineering through a Registered Training Provider, which usually takes 12 months to complete.

Future pathways and opportunities

As a Civil and Structural Engineering Associate you could end up working on some of the country's largest civil construction projects. After gaining a few years of experience behind you and with further training your career could lead you to become a civil construction manager or you may go to University to complete a degree to become a civil engineer.

Average Pay

Up to **\$1,574** per week
depending on your qualifications and experience.

(Source: Job Outlook)

What skills and personal qualities do I need?

- ▶ Able to identify and solve technical problems
- ▶ Have good oral and written communication skills
- ▶ Capable of producing work that is detailed and accurate
- ▶ Be creative
- ▶ Be able to work as part of a team and on my own
- ▶ Have excellent maths skills
- ▶ Have a responsible and mature approach to my work



Next Steps

Further information can be found at:

- ▶ Job Outlook – www.joboutlook.gov.au
- ▶ Civil Contractors Federation – www.civilcontractors.com

- ▶ Jobs and Skills WA – www.jobsandskills.wa.gov.au
- ▶ Australian Apprenticeship Pathways – www.aapathways.com.au
- ▶ Australian Apprenticeship Support Network Providers – www.australianapprenticeships.gov.au